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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,230	12/19/2005	Lars Ake Naslund	027651-288	1552

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EXAMINER	
JOHNSTON, PHILLIP A	
ART UNIT	PAPER NUMBER
2881	

NOTIFICATION DATE	DELIVERY MODE
10/04/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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TH

Office Action Summary	Application No.	Applicant(s)	
	10/561,230	NASLUND ET AL.	
	Examiner	Art Unit	
	Phillip A. Johnston	2881	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 December 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 December 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *1-2006, 12-2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Detailed Action

Claims Rejection – 35 U.S.C. 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

2. Claims 1,2, 6-8, and 13-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The limitations, "providing at least one outlet" in claims 1 and 2; and "providing the outlet" in claims 6-8, and also " both chambers being in communication with an outlet" are indefinite, since no outlet is denoted (such as web outlet) nor referred to in these limitations and more than one outlet is described in the specification.

For purposes of this examination, the examiner has assumed the outlet referred to in the above limitations is a discharge outlet.

Claims Rejection - 35 U.S. C. 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 12 is rejected under 35 U.S.C. 102(e) as being anticipated by Rangwalla, U. S. Patent No. 6,426,507.

5. Regarding claim 12, Rangwalla discloses a device for electron beam irradiation of at least one side of a web, the device comprising: a first chamber comprising a web inlet opening and a web outlet opening, a second chamber extending inside the first chamber, the second chamber comprising a web inlet opening, a web outlet opening, and being adapted to receive an electron beam emitter provided with an electron exit window through which electrons are adapted to be emitted into the second chamber, the web being adapted to pass the second chamber, and the web outlet opening of the first chamber being adapted to be in communication with a gaseous fluid supply and both chambers being in communication with an outlet, the supply and the outlet are adapted to create a flow of the gaseous fluid through both the first and second chambers in a direction opposite the direction of travel of the web. See Col. 5, line 38-48, where Rangwalla teaches (Note Figure 1 below) irradiation chamber 170 located inside liner 190 having web inlet and outlet openings, and irradiating a specimen with electron beams through foil 142, and also injecting gas through ports 172,174,176, and 178 to displace oxygen in irradiation chamber 170.

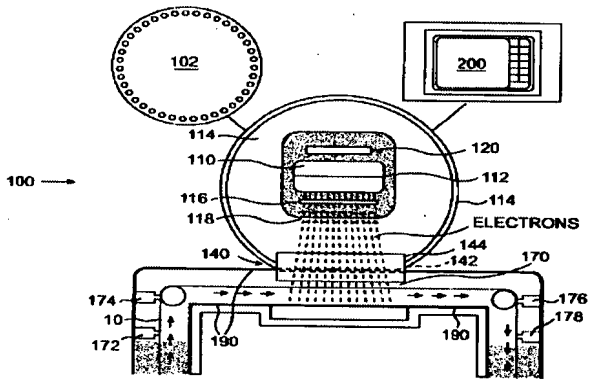

FIG. 1

Claims Rejection – 35 U.S.C. 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1-11, and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,426,507 to Rangwalla, in view of Tominaga, U.S. Patent No. 6,727,508.

8. Regarding claims 13-15, Rangwalla teaches all the required limitations therein, as pointed out above.

9. Rangwalla fails to both chambers being in communication with a discharge outlet.

10. Tominaga teaches the use of discharge pipes located in each chamber. Col. 1, line 38-58.

11. Tominaga modifies Rangwalla to provide a web irradiation chamber outlet closure system and an inert gas spurting device and a gas discharge pipe arranged in the chamber so as to prevent air intrusion.

12. Therefore it would have been obvious to one of ordinary skill in the art that Rangwalla would use the discharge pipes of Tominaga, to permit lowering the oxygen concentration within the irradiating chamber to several percent or less.

13. Regarding claims 1 and 2, the combination of Rangwalla and Tominaga teaches all the structural limitations of the claims therein, as pointed out above regarding claims 12-15.

14. Regarding claims 3-5, the examiner has interpreted from Figures 1 and 3 in Rangwalla that fluid connection is provided between the openings of chambers 170 and 190.

15. Regarding claims 6-8, the combination of Rangwalla and Tominaga teaches providing the discharge outlet in the recited chambers, as pointed out above regarding claims 13-15.

16. Regarding claims 9-11, Rangwalla fails to teach creating a first and second overpressure in the first and second chambers.

17. Tominaga teaches set up the pressure within the irradiating chamber higher than the pressure outside the irradiating chamber. Col. 4, line 2-12.

18. Tominaga modifies Rangwalla to provide an inert gas atmosphere or a reactive gas atmosphere within the irradiating chamber, so that a target object to be irradiated is introduced into the irradiating chamber through a transport inlet of the irradiating chamber, irradiated with the active energy beam then transported out of the irradiating chamber through a transport outlet, wherein the pressures both inside and outside the irradiating chamber are measured and the supply of the inert gas or the reactive gas into the irradiating chamber is controlled on the basis of the differential pressure between the pressure inside the irradiating chamber and the pressure outside the irradiating chamber. Col. 6, line 37-54.

19. Therefore it would have been obvious to one of ordinary skill in the art that Rangwalla would use the pressure differential apparatus of Tominaga, to stabilize the atmosphere within the irradiating chamber (e.g., in order to maintain a stable inert gas atmosphere having a low oxygen concentration within the irradiating chamber).

Conclusion

20. Any inquiry concerning this communication or earlier communications should be directed to Phillip Johnston whose telephone number is (571) 272-2475. The examiner can normally be reached on Monday-Friday from 7:30 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiners supervisor Robert Kim can be reached at (571)272-2293. The fax phone number for the organization where the application or proceeding is assigned is 571 273 8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PJ

September 27, 2007

ROBERT KIM
SUPERVISORY PATENT EXAMINER